Specifications

Only values with tolerances or limits are guaranteed data. Values without tolerances are informative data, without guarantee.

Table 1.2 Specifications

Specification		Allegra V-15R Refrigerated
Speed	Set Speed	100 to 13,500 in 100 rpm increments
	Set RCF	10 to 20,412 *x g* in 10 *x g* increments
	Speed Display	Actual rotor speed in 1 rpm increments or actual RCF in 10 *x g* increments
	Speed Accuracy	±30 rpm of Set Speed from 100 to 13,500 rpm
Time	Set Time	10 seconds to 99 hours 59 minutes and 59 seconds or continuous (hold)
	HH:MM for time >= 1 hour MM:SS for time < 1 hour	Timed Run: indicates run time remaining Hold Run: indicates elapsed time Pulse Run: indicates elapsed time
Temperature	Set Temperature	–10 to +40°C in 1°C increments
	Temperature Display	Estimated sample temperature in 1°C increments
	Temperature Accuracy[a]	±2°C of set temperature (after equilibration); applies to 4 to 25°C temperature range
	Over Temperature Shutdown[b]	>50°C
Acceleration	Acceleration Profiles	10 acceleration rates (0-9), including maximum torque
Deceleration	Deceleration Profiles	10 deceleration rates 0-9), including maximum torque and no braking
Dimensions	Height	39.0 cm (15.4 in)
	Height with open chamber door	88.3 cm (34.8 in)
	Width	60.5 cm (23.8 in)
	Depth	63.5 cm (25.0 in)
Weight	Weight, not including rotor	110 kg (243 lbs)
Ventilation Clearances	Sides	30 cm (1 ft)
	Rear	30 cm (1 ft)
Electrical	Electrical Requirements	120 VAC, 16A, 60 Hz 200 VAC, 10.8A, 50 Hz and 60 Hz 208 VAC, 10.3A, 60 Hz 220 VAC, 10.3A, 60 Hz 220-240 VAC, 9.5A, 50 Hz
	Electrical Supply	Class 1
	Installation (overvoltage) category	II

Table 1.2 Specifications *(Continued)*

Specification		Allegra V-15R Refrigerated
Environmental	Maximum Noise Output (1 m in front of instrument, 1.5 meters above the floor at Instrument Rated Speed)	56 dBA
	Ambient Temperature Range	5°C to 31°C
	Humidity	Max. allowable relative humidity of air 75% from 5°C up to 31°C
	Refrigerant	R452A
	Maximum heat dissipation under steady-state conditions	120V, 60Hz: 5527 Btu/h (1.62 kW) 200V, 50/60Hz: 6483 Btu/h (1.90 kW) 208V, 60Hz: 6176 Btu/h (1.81 kW) 220V, 60Hz: 6210 Btu/h (1.82 kW) 220-240V, 50Hz: 6858 Btu/h (2.01 kW)
	Pollution degree	2[c]
	Maximum Altitude	2,000 meters above sea level
Finishes	Top Surface	Painted sheet steel
	Front Surface	Painted sheet steel
	Door	Painted sheet steel

a. To reach temperatures above ambient, the centrifuge is dependent on the frictional heat generated inside the chamber during operation. At low run speeds or low ambient temperatures, the centrifuge may not be able to achieve some higher temperatures. At high run speeds or high ambient temperatures, the centrifuge may not be able to achieve some lower temperatures.

b. If the system reaches this temperature, it will issue a diagnostic and shut down using maximum deceleration.

c. Normally only nonconductive pollution occurs; occasionally however, a temporary conductivity caused by condensation must be expected.

Available Rotors

The following Beckman Coulter rotors can be used in the Allegra V-15R centrifuge. More detailed specifications for each rotor listed in Table 1.3 can be found in the Allegra V-15R Rotors Instructions For Use (PN C63132).

Table 1.3 Available Rotors for Allegra V-15R

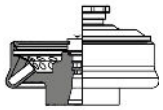
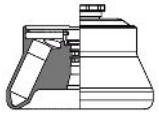
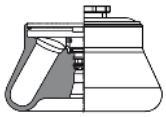
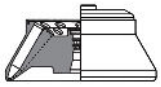
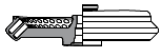
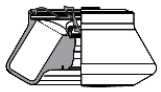
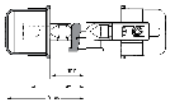
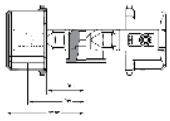
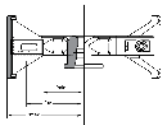
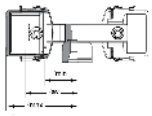
Rotor Profile	Description	RPM[a]	Max RCF[b] (× *g*) at r_{max}	Number of Tubes × Nominal Capacity[c]	Part Number
	VF 48.2 Fixed Angle r_{max} = 100 mm for outer row and inner row	13,500 - Max 13,000 - 4°C operation	20,412 x *g* 18,928 x g - 4°C operation	48 x 2 mL	C63136
	VFC 8.50 Fixed Angle r_{max} = 104 mm	11,360 - Max, 4°C operation	15,032 x *g*	8 x 50 mL	C63139
	VF 6.94 Fixed Angle r_{max} = 106 mm	10,000 - Max, 4°C operation	11,872 x *g*	6 x 94 mL	C63140
	VFC 24.15 Fixed Angle r_{max} = 126 mm for outer row and inner row	9,000 - Max, 4°C operation	11,431 x *g*	24 x 15 mL	C63138
	VF 100.2 Fixed Angle r_{max} = 163 mm for outer row r_{max} = 151 mm for inner row	6,500 - Max, 4°C operation	7,713 x *g* (outer row) 7,145 x *g* (inner row)	100 x 2 mL	C63137

Table 1.3 Available Rotors for Allegra V-15R *(Continued)*

Rotor Profile	Description	RPM[a]	Max RCF[b] ($\times g$) at r_{max}	Number of Tubes $\times$ Nominal Capacity[c]	Part Number
	VF 6.250 Fixed Angle r_{max} = 145 mm	5,450 - Max, 4°C operation	4,824 x *g*	6 x 250 mL	C63141
	VS 4.750 Swinging Bucket r_{max} = 188 mm	4,700 (200-240 VAC) 4,500 (120 VAC) 4,700 - 4°C operation	4,651 x *g* (200-240 VAC) 4,264 x *g* (120 VAC) 4,651 - x g - 4°C operation	4 x 1,000 grams 4 x 750 mL	C63142
	VS 4.750-Hex Swinging Bucket r_{max} = 181 mm	4,700 (200-240 VAC) 4,300 (120 VAC) 4,700 - 4°C operation	4,478 x *g* (200-240 VAC) 3,748 x *g* (120 VAC) 4,478 - x g - 4°C operation	4 x 900 grams 4 x 25 x 10 mL	C63143
	VS 4.750-96 Swinging Bucket r_{max} = 157 mm	4,700 (200-240 VAC) 4,500 (120 VAC) 4,700 - 4°C operation	3,884 x *g* (200-240 VAC) 3,561 x *g* (120 VAC) 3,884 - x g - 4°C operation	4 x 500 grams 4 x 4 x 96 mL	C63144
	VS 2.5-96 Swinging Bucket r_{max} = 151 mm	5,700 (200-240 VAC) 5,400 (120 VAC) 5,600 - 4°C operation	5,495 x *g* (200-240 VAC) 4,932 x *g* (120 VAC) 5,304 - x g - 4°C operation	2 x 520 grams 2 x 5 x 96 mL	C63145

a. Maximum speeds are based on a solution density of 1.2 g/mL. At upper temperature and humidity ambient conditions, swinging bucket rotor speed may require reduction.

b. Relative Centrifugal Field (RCF) is the ratio of the centrifugal acceleration at a specified radius and speed ($r\omega^2$) to the standard acceleration of gravity (*g*) according to the following formula: RCF = $r\omega^2/g$—where *r* is the radius in millimeters, ω is the angular velocity in radians per second (2π rpm/60), and *g* is the standard acceleration of gravity (9807 mm/s^2). After substitution: RCF = 1.12 *r* (rpm/1000)^2

c. For swinging bucket rotors, the maximum load in grams is listed in addition to the nominal capacity in milliliters. The maximum load in grams includes the sample, bottle adapters, and multi-well plate carriages but excludes the bucket and bucket lid.